

attained? I reply, unhesitatingly, by the study of mathematics, science and language. The study of mathematics is particularly adapted to train pupils to habits of systematic regular and connected thought, as it is progressive, each successive step arising immediately out of, and being an easy deduction from the preceding. The study of mathematics is one which very properly takes a prominent part in the school course, and it will meet the view which we have stated as to the objects of school instruction. It disciplines the mind and starts it upon new processes of thought, it suggests one inquiry after another and leads the mind to develop effectually its own resources and strength. It is also an exceedingly practical subject. Some acquaintance with mathematics is indispensable in all the higher arts of construction. The village carpenter, equally with the builder of a cantilever bridge makes hourly reference to its principles. The surveyor, the architect, the builder, the mason, and the various artisans engaged in the construction of a house are all guided by mathematical truths. Out of geometry, as applied to astronomy, has grown the art of navigation, which has so enormously increased our foreign commerce. There is also the application of mechanics on which the success of modern manufactures depends. We are indebted to machinery for almost all our comforts and luxuries. Take the house in which we live, the clothing we wear, the daily newspaper, the locomotive—these are all the products of machinery. But we need not dwell upon a point so generally conceded as the utility of the study of mathematics, since few persons I imagine, will question what has been urged in its favor. If we pass next to science, we shall find no less cogent reasons for its place in a well planned curriculum of study. Take for example the subject of physics. Joined with mathematics it has given us the steam engine, which does the work of millions of labourers—the thermometer, the microscope, the mariner's compass, the telegraph. Our obligations to chemistry are even more numerous than those to physics. In fact, to every one engaged in the business of life, a knowledge of science in some of its departments is of fundamental importance. Indeed the marvellous discoveries and inventions to which the study of mathematics and the sciences have led, have developed a strange misconception in the minds of superficial thinkers with respect to their value as instruments of mental discipline when compared with the study of language. It appears to be generally assumed that the study of mathematics, of physics, and of chemistry, will supply to the average man equally with the technical worker something which he may constantly put in use—while the study of

language, more particularly the study of the ancient languages and the subjects connected with them, supplies a pupil with idle things, with a knowledge that has no connection with daily life. Now, while I am a firm believer in the importance of giving every pupil training in mathematics, and some training in two or three of the natural sciences—say botany, physics and chemistry—enough to give him a clear conception of the way in which scientific work is carried on, I consider it to be detrimental to the interests of true education to maintain that their chief value lies in their practical application.

We shall now proceed to assert that the study of language is the other great and all important part of the course of instruction. Now, then, we are upon controverted ground, but I am bold enough to claim that language takes precedence, in some respects, even of mathematics and science as a primary study. What, we venture to ask, can there be more practical than the study of language? No individual passes a waking hour without bringing it into active use. We employ it in school in the communication of all other knowledge, and just in proportion as the pupils comprehend and appreciate the full force of the language used, do they conceive with clearness the idea to be conveyed. It is therefore important that they should at once begin the study of language which is "the most powerful of all agents in producing the changes that take place in the moral, intellectual, and material world." I cannot refrain from quoting in this connection some interesting words by Dr. Thring, to whom I have already alluded.

Something is required which shall be perfectly easy, and at the same time perfectly hard; familiar to all and known to none; so simple that babies learn it with ease, so complicated that the ablest are ever learning it unsuccessfully; all these, and many more like paradoxes, are reconciled in language. Language is the material ready at hand for the training of the whole world. Language is the most perfect field of exercise for accuracy, at the same time that it is the mistress of all knowledge, and the medium of all thought. No nation, therefore, can be considered to have made a beginning of true educational system, which does not use the store of material, which the most ignorant already possess, in order to train thought, observation and accuracy.

The disagreement, however, is not exactly here. All are agreed upon the necessity of language, and of an ability to use it with intelligence, strength and fluency. The main question is, what language or languages are necessary and of primary importance in the course of study? We use nothing but English in our daily conversation. Our instruction is given entirely in English. Why then is it necessary to learn any language but English? Why is it necessary to learn any language not now spoken, such as Latin? We